Book Thickness of Powers of Paths and Cycles

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The k-th power of a graph is the supergraph obtained by adding edges between two vertices with distance $\leq k$. In this talk, book thickness of powers of paths and cycles are determined. Further, using results of Hakimi, Mitchem & Schmeichel, we give bounds on the number of star forest pages in a book embedding of these graphs. Powers of paths and cycles are a natural architecture for user-oriented software, while star forest pages may be a good choice for hardware in parallel processing in outerplanar layers of an integrated circuit.

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